

Technology Transfer: The BERMED Project Comes to the U.S.A.

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The exchange of information plays a critical role in the world of healthcare. Many pieces of information, often from disparate sources, must be integrated at the right time, in the right place, and in a user-friendly format to ensure accurate diagnosis and treatment. A single physician cannot always make the decision alone-- often a team of specialists has to work together, exchanging information and personal experiences, in order to develop expert solutions. The acquisition of this information as well as the joint or separate consultation between colleagues requires considerable organizational effort, time, and financial strain.

Modern techniques in information and communication technology have contributed to an improvement in the exchange and cooperation among medical physicians. A number of telemedical projects have been conducted between DeTeBerkom (the German Telecom's R&D Division) and their partners -- including the Berlin Heart Institute -- and have focused on the development of practice-oriented solutions for communication in health and medicine. The results of these telemedical projects have been user-friendly applications and working environments that are well suited to working procedures in clinics, practitioner's offices, and other institutions of the healthcare world.

BERMED (BERlin MEDical project) is improving the medical and organizational procedures both within and between medical clinics and established practitioners. The common thread running through BERMED component projects is a commitment to ensure transparent access to: multimedia patient records and data sources; medical documents throughout the world; a broad range of image data; and administrative functions.

At the heart of the project lies the integration of all different forms of data concerning patients, from heterogeneous sources, into one electronic multimedia patient record. This record can be accessed via fast data networks including ISDN, STM, and ATM links. The individual documents with such a record -- whether text, image, or graphical data -- are often stored at distributed locations such as large hospitals, family doctors, or specialists. The logical linkage of these individual documents into one patient record occurs through an object-oriented, open, distributed information management system. This system represents an intelligent, distributed database, capable of cataloging all documents together from their respective locations and having these assigned to a particular patient. By conforming to international standards, BERMED offers global, manufacturer-independent solutions that increase efficiency, save money, and lower the time factor of critical procedures in diagnosis and therapy.

Various technological advancements from the fields of information technology and communications are being implemented and tested in the BERMED project for their practical value. Additionally, the more mature technology is being transferred to Berkom USA, a strategic partner of DeTeBerkom, for field trials in U.S. clinics and medical institutions. Several of these capabilities will be demonstrated as an interactive electronic poster including:

- RADCOM - Communication for radiologists
- MEDIKOM - Medical image conference
- PADKOM - Patient data integration
- VIDMED - Visualizing medical data
- TELEMED - Telecooperation for physicians